

PATENT

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May 1, 2003  
Date

Gabrielle Collier  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Timothy B. Main et al.  
Application No. : 09/905,434  
Filed : July 13, 2001  
For : BALING BAG FOR AUTOMATIC BAG LOADING

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TECHNOLOGY CENTER R3700

Examiner : Stephen Garbe  
Art Unit : 3727  
Docket No. : 59159-9  
Date : April 16, 2003

Commissioner for Patents  
Washington, DC 20231

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents:

I, Mark L. Johnson, hereby declare that I am Head of Operations for Atlantic Produce Company of Warden, Washington, and have been in that position since 2001. I have been involved in the produce packing industry, particularly potato packing and shipping, since the 1960's.

Atlantic Produce Company is a leading shipper of prepackaged produce products. Atlantic Produce Company is currently using the claimed invention to ship consumer bagged packages of potatoes. The shipping container that is the subject of the claimed invention is known as a bale. The claimed bale has enjoyed a wide degree of acceptance in the industry for it has the necessary characteristics required of a bale used in an automated bale loading apparatus.

I am familiar with the above-referenced patent application, as well as the development, usage and properties of commercial shipping containers.

To the best of my recollection, bulk produce, such as potatoes, were commonly shipped in 100 pound burlap sacks using completely manual techniques to load the sacks. In the late 1960's some automation was introduced to weigh and sort potatoes according to size and to load the potatoes into 50 pound cardboard boxes for shipping.

In the 1970's, packers began to prepackage potatoes into 5 pound or 10 pound consumer sized bags and load a number of these consumer sized packages (*i.e.*, 5 pound or 10 pound bags) into a commercial shipping container known as a bale for eventual distribution to retail stores. The consumer sized packages of potatoes were loaded with potatoes by hand, and the consumer sized packages were loaded by hand into the bales.

Many efforts have been made over the course of 40 years to automate the packaging process. In the 1970's, a device known as a Dynabaler attempted to automate the loading of the prepackaged potatoes into the bale. The bales were manually opened and clamped on a circular carousel at one station. As the opened bale rotated around the carousel, a number of bags of prepackaged consumer sized packages of potatoes were dropped into the open bale. The open bale was manually removed from the carousel at another location and sealed for shipping.

Other machines have attempted to automate the process of extracting a bale from a stack of bales, opening the bale and loading the bale with several consumer sized packages of potatoes. In the 1990's I owned a company known as Crater Lake Distributors in Klamath Falls, Oregon. We purchased an automated bale loading machine that placed bales in a horizontal stack by the side of the machine. A vacuum device moved to pick up the top bale from the stack. Additional vacuum devices and mechanical grippers were intended to open the bale and hold the bale in position for loading consumer sized packages of potatoes. The machine had numerous problems and, after approximately one and a half years of attempting to perfect the design, we abandoned the project. One deficiency in the device was the inability of the vacuum device to consistently pick up a bale. A bale is a heavy multi-walled shipping container

designed to protect 50 pounds of prepackaged potatoes. We attempted to use a lightweight bale to provide more consistency in the bale extraction process. However, lightweight bales tended to tear in the loading process and thus were not an acceptable substitute.

As noted above, a bale is a commercial shipping container that must have sufficient size and strength to retain approximately 50 pounds of potatoes. A conventional grocery bag is not a suitable substitute for a paper bale. I have read and understood U.S. Patent No. 1,713,341 to Kroemer. The bag described in this reference appears to be a conventional single wall consumer bag. Bales were not introduced to the marketplace until the 1970's. The single wall bag described in Kroemer would not be considered as an acceptable substitute for a bale. I believe that one skilled in the art looking for ways to automate the use of the bale loading process would not look to the Kroemer reference as providing a suitable teaching since the bag disclosed would be totally inappropriate for use as a bale.

I have also reviewed U.S. Patent No. 5,741,076 to Cammack and U.S. Patent No. 6,024,489 to Fox et al. Both these references are directed to polyethylene bags (polybags), which are similar to the consumer sized bags in which the potatoes are first loaded and then several of the polybags are placed in a bale. I believe that polybags are an unacceptable substitute for bales. Polybags trap moisture from the potatoes and allow sunlight to strike the potatoes causing an undesirable "greening" effect. While retailers prefer polybags for consumer sized packages, shippers prefer the use of paper bales as the commercial shipping containers into which the consumer sized packages, such as polybags, are placed for shipping. In addition to the undesirable characteristics of polybags (*i.e.*, moisture trapping and transparent color), the polybags described in the Cammack and Fox references are consumer sized packages and are unsuitable for use as shipping containers. Furthermore, the vertical slits shown in Cammack and Fox et al. would allow premature separation of the bag from the wickets. This would jam automated machinery and cause significant loss of productivity. One of ordinary skill in the art would not look to polybags as an acceptable substitute for paper bales and would be unlikely to use references such as Cammack and Fox et al. to design the claimed bale.

The bale in the claimed invention is a multi-wall paper bale for shipping bulk quantities of potatoes and configured for use with an automated potato bale-filling apparatus. The bale of the claimed invention has sufficient size to receive and sufficient strength to retain during shipping a plurality of consumer sized bags of potatoes. The consumer sized paper bag of the Kroemer reference and the consumer sized polybags of the Cammack and Fox references do not have sufficient size or strength to serve as bales. One of ordinary skill in the art would not look to these references to teach about commercial shipping containers.


The bale described in the pending patent application was introduced in 2001. Atlantic Produce Company purchased a machine for use with the inventive bale in mid-2002. The inventive bale has worked with the machine purchased by Atlantic Produce. A number of different automated machine designs have been developed to make use of the inventive bale. Since its introduction, virtually all paper bales manufactured in the United States and Canada are made in accordance with the teachings of the pending patent application and the paper bales have experienced great acceptance and commercial success.

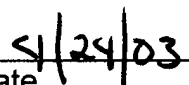
In my opinion, the commercial success has resulted directly from the invention claimed in the pending application. The inventive bale has been used in a variety of different machine designs and has been found to have the desirable characteristics of a bale, and to be useful in an automated process. The bale of the claimed invention has permitted the reliable automation of the potato packing process with significantly reduced labor costs and shipping costs. The paper bags and polybags shown in the cited prior art patents have been around for many years, but never utilized and are inappropriate for use as a bale, thus they did not solve the problems of the industry solved by the claimed paper bale and have had no commercial success as a bale.

In my opinion, the commercial success enjoyed by the claimed invention is an indication that the combination of elements in the claimed bale attests to the usefulness and should have relevancy as an indicia of non-obviousness of the invention. There is no other reason why the claimed bale has become the bale of choice.

In my opinion, many attempts to automate the process have been unsuccessful in the past because of a lack of a suitable shipping container. The introduction of the claimed bale enabled the development of multiple different machine designs that utilize the claimed bale. Although different types of automated machinery have been available and certainly ordinary paper bags and polybags have been around for years, the different attempts that have been made to automate the process were not successful. It was not until the introduction of the claimed bale that an acceptable automated machine could be developed. In my opinion, it is the introduction of the bale design that has enabled multiple different automated machinery to effectively automate the bale loading process. There was clearly a previously unfulfilled need to automatically load bales that was often tried using other bales, but without success, and it was the introduction of the claimed bale that satisfied the need for a bale suitable for automatic loading.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that the making of willfully false statements and the like is punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and may jeopardize the validity of any patent issuing from this application.

  
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